

Claims:

1. A method of retaining a packer in a drilling head, comprising:
 - a) disposing a packer in a rotating portion of the drilling head;
 - b) radially moving a retainer toward the packer, the retainer being at least partially disposed in the rotating portion; and
 - c) radially engaging the packer with the retainer while maintaining a portion of the retainer in the rotating portion.
2. The method of claim 1, wherein the retainer is disposed between the packer and the rotating portion prior to engagement with the packer.
3. The method of claim 1, further comprising allowing the rotating portion to rotate relative to a non-rotating portion while maintaining the engagement of the packer with the retainer.
4. The method of claim 1, wherein radially moving the retainer comprises using fluid pressure to force a piston toward the retainer.
5. The method of claim 1, further comprising actuating movement of the retainer from a location remote to the retainer.
6. The method of claim 1, further comprising using bearings to allow rotation between the rotating portion and a non-rotating portion wherein the bearings are pre-loaded by a force exerted on the bearing.
7. The method of claim 6, further comprising maintaining the pre-loading on the bearing from a location remote to the bearing by controlling the pressure of the fluid.

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8. The method of claim 6, further comprising altering the pre-loading on the bearing by adjusting fluid pressure exerted on the bearing.
9. The method of claim 1, wherein radially moving the retainer comprises using hydraulic pressure to force a piston toward the retainer.
10. The method of claim 1, wherein radially moving the retainer comprises using pneumatic pressure to force a piston toward the retainer.
11. The method of claim 1, wherein radially moving the retainer comprises using a bias member to force a piston toward the retainer.
12. A drilling head, comprising:
 - a) a non-rotating portion;
 - b) a packer disposed within the non-rotating portion;
 - c) a retainer ring radially disposed about the packer; and
 - d) an annular piston radially disposed about the packer and aligned with the retainer ring.
13. The drilling head of claim 12, wherein the annular piston is fluidically actuated.
14. The drilling head of claim 13, wherein actuation of the annular piston is remotely controlled.
15. The drilling head of claim 12, further comprising a second retainer ring disposed between portions of the drilling head and a body surrounding the portions of the drilling head, the second retainer ring being adapted to retain the portions of the drilling head with the body.
16. The drilling head of claim 12, further comprising a second annular piston engageable with the second retainer ring.

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17. The drilling head of claim 12, further comprising a rotating portion disposed between the packer and the non-rotating portion, the rotating portion comprising a first cavity for the retainer ring and a second cavity for the annular piston.

18. The drilling head of claim 12, further comprising a flange disposed on each end of the drilling head.

19. The drilling head of claim 12, further comprising a lower body and an upper body coupled to the lower body and wherein the packer is enclosed therein.

20. The drilling head of claim 1, wherein the lower body and the upper body are coupled in a sealing relationship.